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10/698,157

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Steven K. Ribling

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EXAMINER

TECKLU, ISAAC TUKU

ART UNIT

PAPER NUMBER

2192

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/698,157	<b>Applicant(s)</b> RIBLING, STEVEN K.	
	<b>Examiner</b> ISAAC T. TECKLU	<b>Art Unit</b> 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Claims 1-23 have been examined.

#### *Response to Arguments*

2. Applicant's arguments filed 02/13/2009 have been fully considered but they are not persuasive.

#### Argument:

“That is, paragraph [0004] of *Richardson* does not disclose anything more than the general definition of a test executive, which general definition does not include a test executive that is "configured to select a test sequence in one of the plurality of control files to use based on a unit-under-test," Specifically, the disclosure in paragraph [0004] does not mention a test executive configured to select anything, let alone a test executive configured to select a test sequence from amongst a plurality of test sequences within control files based on the unit being tested. Therefore, *Richardson* fails to disclose each and every element of claim 1.” (pages 9-10)

#### Response:

The examiner respectfully disagrees with the above argument. Richardson discloses a test executive that allows a user to organize and execute sequences (also referred to as test sequence files) of reusable test modules to automatically control a test, such as a test involving one or more instruments or devices or software applications. It is clear that the test executive has to be configured to select test sequences, in order to have the sequences being organized and executed. Richardson clearly teaches the above concept in the following paragraphs:

[0002] The present invention relates to test executive software for organizing and executing test sequence files, e.g., test sequence files to measure and/or control instrumentation systems, and more particularly relates to a system and method for detecting differences between test sequence files (emphasis added).

[0004] A test executive is a program that allows a user to organize and execute

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sequences (also referred to as test sequence files) of reusable test modules to automatically control a test, such as a test involving one or more instruments or devices or software applications. The test modules often have a standard interface and typically can be created in a variety of programming environments. The test executive software operates as the control center for the automated test system. More specifically, the test executive software allows the user to create, configure, and/or control test sequence execution for various test applications, such as production and manufacturing test applications. Text executive software typically includes various features, such as test sequencing based on pass/fail results, logging of test results, and report generation, among others (emphasis added).

Thus, it is respectfully submitted that the above argument is not persuasive and the rejection has been maintained as set forth in the Office Action.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Richardson (US 20020166081 A1).

Per claim 1 (Currently Amended), Richardson discloses data-empowered test program architecture stored on a computer readable storage medium, comprising:

a plurality of control files, each control file defining a test sequence and instructions for executing the test sequence (see at least paragraph [0147] "... sequence files... normal sequence files... files contain sequence that test a UUT...");

a test executive module configured to select a test sequence in one of the plurality of control files to use based on a unit-under-test (see at least paragraph [0004] "... test executive is a program ... organize test sequences...");

a test framework software module configured to receive a selected test sequence from the test executive software module, determine how to perform the test sequence and perform the selected test sequence; and (paragraph [0015] "... modules that provide an application programming interface... executing and debugging sequences..." and paragraph [0016]);

a plurality of software components in a software components module) coupled for interaction with the test framework software module and structured for outputting at least one test report (see at least paragraph [0063] "...interface programs...other software programs...").

Per claim 2, Richardson discloses the architecture of claim 1 wherein the test framework software module further comprises a hardware abstraction interface (see at least paragraph [0064] "... adapter interface to one or more adapters...").

Per claim 3, Richardson discloses the architecture of claim 1, further comprising an external reuse library having one or more test descriptions of common signal types and being

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coupled for generating the control files (see at least paragraph [0078] “... library for the parameter list ... sequence developer...”).

Per claim 4, Richardson discloses the architecture of claim 1 wherein the software components module further comprises one or more software components for interfacing between the one or more external control files (see at least paragraph [0063] “...interface programs...other software programs...” ) and one or more of the test executive software module and the test framework software module (paragraph [0015] “... modules that provide an application programming interface... executing and debugging sequences...” and paragraph [0016]).

Per claim 5, Richardson discloses the architecture of claim 1 wherein the software components module further comprises a pass/fail analyzer and report generator having one or more modes of pass/fail analysis and test reporting (see at least paragraph [0004] “... pass/fail results ...”).

Per claim 6, Richardson discloses a data-empowered test program architecture stored on a computer readable storage\_ comprising:

a plurality of external control files having a list of test identification numbers, each test identification number defining a test sequence and instructions for executing the test sequence (see at least paragraph [0147] “... sequence files... normal sequence files... files contain sequence that test a UUT...”);

a test executive module having an execution engine coupled to receive one or more test identification numbers from the list of test identification numbers based on a unit-under test, the test identification number configured to generate<sub>2</sub> as a function of the one or more test identification numbers a plurality of test actions to be performed on the<sub>1</sub> unit-under-test as defined in the test sequence (see at least paragraph [0004] "... test executive is a program ... organize test sequences...");

a test framework module for accessing the plurality of test actions and the instructions, the test framework module configured to perform, based on the instructions, the steps of: (paragraph [0015] "... modules that provide an application programming interface... executing and debugging sequences..." and paragraph [0016]):

i) determining an identification of one of the test hardware resources associated with a current one of the test action (see at least paragraph [0112] "... test module... unit configured ..."),

ii) retrieving the identification of the associated test hardware resource (see at least paragraph [0201] "... object difference..."),

iii) determining a signal type corresponding to the retrieved test hardware resource identification (e.g. FIG. 15 and related text),

iv) accessing as a function of the signal type one of the external control files having test hardware resource card-type information (e.g. FIG. 3 and related text), and

v) determining the test hardware resource card-type information as a function of a card-type identifier (see at least paragraph [0057] and e.g. FIG. 3 and related text).

Per claim 7, Richardson discloses the architecture of claim 6 wherein the test hardware resource card-type information includes routing data and parameters for interfacing with an external hardware driver (see at least paragraph [0057] and e.g. FIG. 3 and related text).

Per claim 8, Richardson discloses the architecture of claim 6, further comprising an external reuse library having a plurality of test descriptions corresponding to a plurality of different test signal types (see at least paragraph [0078] "... library for the parameter list ... sequence developer...").

Per claim 9, Richardson discloses the architecture of claim 6, further comprising a plurality of software components for interfacing between the external control files and one or more of the test executive module and the test framework module (see at least paragraph [0147] "... sequence files... normal sequence files... files contain sequence that test a UUT...").

Per claim 10, Richardson discloses the architecture of claim 9 wherein the plurality of software components further comprises one or more modes of pass/fail analysis and test reporting (see at least paragraph [0015] "... pass/fail results ...").

Per claim 11 (Currently Amended), Richardson discloses computing device, comprising:  
means for storing a plurality of test actions; (e.g. FIG. 3 and related text)



means for determining which test actions of the plurality of test actions are to be performed on one of a plurality of units-under-test (see at least paragraph [0004] "... test executive is a program ... organize test sequences...");

means for determining which instructions to use when performing the plurality of test actions (paragraph [0015] "... modules that provide an application programming interface... executing and debugging sequences..." and paragraph [0016]);

means for identifying, based on the instructions, test hardware resources associated with a current one of the plurality test actions (e.g. FIG. 14 and related text); and

means for interfacing with an external hardware driver as a function of identifying the test hardware resources associated with the current one of the plurality of test actions (see at least paragraph [0057] and e.g. FIG. 3 and related text)..

Per claim 12 (Currently Amended), Richardson discloses the computing device of claim 11 wherein the means for interfacing with an external hardware driver further comprises:

means for determining a signal type corresponding to the identified test hardware resource (see at least paragraph [0057] and e.g. FIG. 3 and related text);

means for accessing as a function of the signal type an external control file having test hardware resource card-type information contained therein (paragraph [0015] "... modules that provide an application programming interface... executing and debugging sequences..." and paragraph [0016]) and

means for determining the test hardware resource card-type information as a function of a card-type identifier (paragraph [0015] “... modules that provide an application programming interface... executing and debugging sequences...” and paragraph [0016]).

Per claim 13, Richardson discloses the computing device of claim 11 wherein the means for generating a plurality of test actions further comprises means for generating the plurality of test actions as a function of one or more test identification numbers received from a list of test identification numbers (see at least paragraph [0057] and e.g. FIG. 3 and related text).

Per claim 14, Richardson discloses the computing device of claim 11 wherein the means for generating a plurality of test actions to be performed on a unit-under-test further comprises means for generating a plurality of control files for configuring software code for generating the plurality of test actions (see at least paragraph [0078] “... library for the parameter list ... sequence developer...”).

Per claim 15, Richardson discloses the computing device of claim 14 wherein the means for generating a plurality of control files further comprises means for generating one or more of the control files as a function of one or more test descriptions of signal types contained in an external reuse library (see at least paragraph [0078] “... library for the parameter list ... sequence developer...”).

Per claim 16, Richardson discloses the computing device of claim 11, further comprising means for performing pass/fail analysis (see at least paragraph [0015] "... pass/fail results ...").

Per claim 17, Richardson discloses the computing device of claim 16, further comprising means for generating one or more test reports (see at least paragraph [0004] "... report generation..." and paragraph [0141]).

Per claim 18 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 11), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 19 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 12), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 20 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 13), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 21 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 16), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 22 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 17), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 23 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 14), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAC T. TECKLU whose telephone number is (571) 272-7957. The examiner can normally be reached on M-TH 9:300A - 8:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Isaac T Tecklu/  
Examiner, Art Unit 2192

/Tuan Q. Dam/  
Supervisory Patent Examiner, Art Unit 2192